# REMARKS

## **Summary of the Office Action**

Claims 1-6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Short et al. (US 4,739,514).

Claim 6 stands rejected under 35 U.S.C. § 112, second paragraph.

Claim 2 stands objected to because of the informalities.

#### Summary of Response to the Office Action

Applicant has amended claims 1-6, and added new claims 7 and 8. Accordingly, claims 1-8 are pending for further consideration.

### The Rejections of Claim 6 under 35 U.S.C. §112, second paragraph

Claim 6 stand rejected under 35 U.S.C. § 112, second paragraph, for lack of antecedent basis for a recited feature in the claim. In accordance with the Examiner's suggestion, Applicant has amended independent claim 6. Applicant respectfully submits that the amendment to claim 6 does not narrow the intended scope of the claim, and therefore, Applicant does not intend to relinquish any subject matter by these amendments. Thus, Applicant respectfully submits that claim 6, as amended, fully complies with the requirements of 35 U.S.C. §112, second paragraph, and respectfully requests that the rejection under 35 U.S.C. §112, second paragraph, be withdrawn.

## All Claims Define Allowable Subject Matter

Claims 1-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Short et al. Applicant respectfully traverses the rejection for at least the following reasons.

Independent claims 1 and 5, as amended, both recite a deep bass sound booster device, comprising "switching means for forming a first signal path when the reproduction with loudspeakers is selected and forming a second signal path when the reproduction with headphones is selected."

In contrast to Applicant's claimed invention, <u>Short et al.</u> teaches (ABSTRACT) an automatic dynamic equalizer used to reproduce an input sound signal. As taught by <u>Short et al.</u>, at column 3, lines 30-37, a single signal path is used to reproduce an input sound signal by dynamic equalizer (i.e., bass booster) to be outputted only at the loudspeaker. Thus, Applicant respectfully asserts that <u>Short et al.</u>, does not teach anything about a separate signal path for sound reproduction at headphones.

Moreover, Applicant respectfully submits that as described in the Paragraph 8, and FIG. 7 of SPECIFICATION, Applicant has expressed that in order for a conventional deep bass sound booster device to output the reproduced audio sound to both headphones and loudspeakers, three individual bass boosters are required. Applicant respectfully submits that since teaching of Short et al. is limited only to the sound reproduction at loudspeakers, if Short et al. were to incorporate dynamic equalizer (i.e. bass booster) for the headphones, Short et al. would need to use additional two dynamic equalizers, hence block diagram for such system will become identical to that of FIG. 8 of the current invention. Applicant respectfully submits that since the object of Applicant's claimed invention is to provide a deep bass sound booster device that can be made smaller in size (Paragraph 9, SPECIFICATION) by reducing bass boosters to one (FIG. 1, amended claim 1), or two (FIG. 2, amended claim 5), thus, having three bass boosters as

indicated above teaches away from Applicant's object. In other words, teaching of <u>Short et al.</u> actually contradicts with Applicant's claimed invention.

Applicant respectfully submits that the claimed invention is intended to solve the problems mentioned above, by successfully reducing the numbers of bass boosters by devising switching and connections under the condition in which when either loudspeakers or headphone is used for the sound reproduction. In the Office Action, Examiner asserts that Short et al. meets all elements of claim 4 with the exception being that the switch is turned on when the first and second signals are added together and fed out of the deep bass sound booster device by way of the first output terminal, and the switch is turned off when the first and second sound output signals are separately fed out of the deep bass sound booster device by way of the first and second output terminals respectively. It is obvious that the switch would have to be turned on in order for the two signals to be added and that it would have to be off in order for the signals to be fed out separately. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Short et al.'s apparatus for the benefit of enabling the equalization of loudspeakers to be automatically switched. Applicant strongly disagree. Applicant respectfully submits that as presented earlier, Short et al. does not disclose multiple signal paths, corresponding circuits, and switching connections allowing sound reproduction at either loudspeakers or at headphones.

As instructed in MPEP §2143.03, "[t]o establish a prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 4980 F.2d 981, 180 USPQ 580 (CCPA 1974)."

In the light of above argument, Applicant respectfully requests that the rejections of amended independent claims 1 and 5, under 35 U.S.C. § 103(a) be withdrawn. Furthermore, Applicant respectfully submits that amended dependent claims 2-4, 6, and new dependent claims 7 and 8, are allowable for all of the reasons discussed above with regard to independent claims 1 and 5, from which they depend, as well as the individual features each of dependent claims 2-4 and 6-8 recite.

# **CONCLUSION**

In view of the foregoing remarks, Applicant respectfully requests reconsideration of this application, withdrawal of all rejections, and the timely allowance of all pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310.

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If a fee is required for an extension of time under 37 C.R.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully Submitted,

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